disclose; **H. El-Sayed**: Nothing to disclose; **H. Hassoun**: Nothing to disclose; **A. B. Lumsden**: Nothing to disclose; **J. Naoum**: Nothing to disclose; **E. Peden**: Nothing to disclose; **T. Street**: Nothing to disclose.

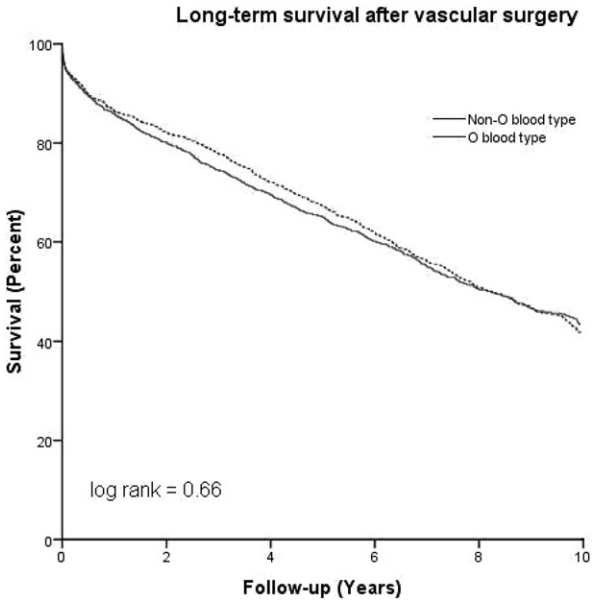
PS166.

ABO Blood Type is not Associated with Outcome after Vascular Surgery

Koen M. van de Luijtgaarden, Erik J. Bakker, Sanne E. Hoeks, Michiel T. Voute, Yvette R. van Gestel, Hence J. Verhagen, Don Poldermans. Vascular Surgery, Erasmus MC, Rotterdam, Netherlands

Objectives: Non-O blood types are associated with higher levels of von Willebrand factor and factor VIII and with increased risk of coronary, cerebral and peripheral arterial disease and venous thromboembolism. We hypothesize that non-O blood type is a predictor of long-term mortality after vascular surgery, although this effect might be diminished by aspirin and/or Vitamin K Antagonist use.

Methods: In 3255 major vascular surgery patients, baseline characteristics, ABO blood type and follow-up (mean 5 years) were obtained. The primary endpoint was all-cause mortality, the secondary endpoint was Major Adverse Cardiac Event (MACE). Multivariate analyses, correcting for gender, medical history, left ventricular dysfunction and smoking, were used to evaluate the impact of ABO blood type on mortality.



Results: Cardiovascular risk factors, medication and type of surgery were well balanced between groups. All patients were on chronic ASA/VKA therapy. Within 30 days after surgery, 3.4% of non-O and 3.6% of O patients suffered MACE (OR 0.94; 95%CI 0.65-1.37). In a multivariate model, O blood type was not associated with increased mortality during long-term follow-up (HR 0.98; 95%CI 0.89-1.09).

Conclusions: Although associated with atherothrombosis and increased mortality in CAD, non-O blood type is not associated with either short or long-term mortality in vascular surgery patients. This discrepancy might be explained by the high rate of ASA/VKA use in our population.

Author Disclosures: E. J. Bakker: Baxter Healthcare Corporation,Research Grants; **S. E. Hoeks**: Dutch foundation "Lijf en Leven",Research Grants; **D. Poldermans**: Merck,Research GrantsNovartis,Research GrantsMedtronic, Research Grants; **K. M. van de Luijtgaarden**: Nothing to disclose; **Y. R. van Gestel**: Nothing to disclose; **H. J. Verhagen**: Cook, Consulting fees or other remuneration (payment)Medtronic, Consulting fees or other remuneration (payment)Gore, Consulting fees or other remuneration (payment); **M. T. Voute**: Dutch Heart Foundation, Research Grants.

PS168.

Do Ethnic Differences and TASC Distribution Affect the Incidence of Lower Extremity Amputation?

Nicholas J. Gargiulo[1], David J. O'Connor[2], William D. Suggs[1], Larry A. Scher[1], Omer Riaz[1], Ashish Raju[1], Yana Etkin[1], Evan C. Lipsitz[1]. [1]Department of Cardiovascular and Thoracic Surgery, Albert Einstein College of Medicine and Montefiore Medical Center, New York, NY; [2]Mount Sinai School of Medicine, New York, NY

Objectives: There has been recent interest in ethnic differences with a wide variety of disease entities. This study was initiated to better determine what if any factors affected a diverse ethnic population afflicted with CLI.

Methods: We reviewed all patients presenting with CLI from January 1, 2007 to December 31, 2007. All patients underwent conventional arteriography and if possible an endovascular, open or hybrid procedure for successful limb salvage. Multivariate logistic regression was then used to determine any association between ethnic background and Rutherford Class, co-morbid conditions, TransAtlantic InterSociety Consensus II (TASC II) classification, runoff score, types of intervention (open, endovascular or hybrid), prior and repeat procedures, mortality and one-year amputation free survival (outcome).

Results: One hundred and forty eight patients presented with primary, secondary or tertiary CLI over this one year period. Of these, 58 (40%) were Black, 57 (40%) were Latino and 28 (20%) were White. There was no difference in clinical presentation among the three races ($P < 0.02$). All groups had similar rates of TASC II D iliac disease, however Blacks had a higher prevalence of TASC II D femoropopliteal disease ($P < 0.02$). Latinos and Caucasians had a higher preva-

lence of TASC II D infrapopliteal disease ($P<0.02$). Primary patency rates among the three ethnic groups remained similar at 1 year, however the Latino group displayed poorer patency after one year compared to Blacks and Caucasians ($P<0.02$). All three ethnic groups had a similar one year amputation rate of 6.4%.

Conclusions: There does not appear to be a significant difference among racial groups in clinical presentation. There are disparate lesion distributions among the three ethnic groups, with more severe TASC II D infrapopliteal disease in the Latino group, possibly affecting primary patency rates. There was no clear ethnic difference amongst the groups with regards to overall amputation rate.

Author Disclosures: Y. Etkin: Nothing to disclose; **N. J. Gargiulo**: Nothing to disclose; **E. C. Lipsitz**: Nothing to disclose; **D. J. O'Connor**: Nothing to disclose; **A. Raju**: Nothing to disclose; **O. Riaz**: Nothing to disclose; **L. A. Scher**: Nothing to disclose; **W. D. Suggs**: Nothing to disclose.

C3h: Poster Session - Dialysis Access; Educational/ Training Credentialing; Other.

PS170.

Inadvertent Great Vessel Arterial Catheterization During Ultrasound-Guided Central Venous Line Placement: A Potentially Fatal Event

Lakshmikumar Pillai, Pamela M. Zimmerman, Alexandre C. d' Audiffret. Surgery, West Virginia University Medical Center, Morgantown, WV

Objectives: To review the incidence, efficacy of treatment, and outcome of inadvertent subclavian and carotid artery catheterization (arterial catheter placement, not simple cannulation by entry needle) during central venous access procedures which required open vascular and/or endovascular repair.

Methods: 5-year retrospective review of all central venous access procedures performed at a teaching hospital.

Results: From 2005-10 a total of 10,731 central venous access procedures ("line placements") were performed. There were 132 (1%) pneumo and or hemo/ pneumothoarcies related to line placement. In 8 patients there was inadvertent/unrecognized subclavian or carotid artery catheterization requiring open and/or endovascular repair. All 8 procedures were done under "ultrasound guidance" by either Anesthesia or Critical Care Physicians attempting jugular line placement in the OR or ICU. Eighty-eight percent(7/8)vessels were successfully repaired.5/7 vessels(71%)were repaired using endovascular methods and 2/7 vessels(29%)using open surgery. The remaining injured vessel did not require repair due to successful treatment of hemothorax with chest tube resulting in hemostasis at site of vessel injury. However,38% (3/8) patients still subsequently expired including the lone patient whose vessel did not require repair- the other two deaths occured in the patients who had undergone open repair. All deaths were related to the intial injury. The right subclavian or carotid artery was the "fatal" vessel catheterized in the deceased patients.

Conclusions: Though rare, inadvertent great vessel catheterization during central line placement appears to be a highly morbid and fatal event in 38% of the patients in this study. Endovascular repair of these injuries appears to be better tolerated. Although ultrasound guidance is the preferred method of jugular venous imaging during central vein catheterization, in this review it did not prevent inadvertent arterial catheterization and may indeed have imparted a false sense of security.

Author Disclosures: A. C. d' Audiffret: Nothing to disclose; **L. Pillai**: Nothing to disclose; **P. M. Zimmerman**: Nothing to disclose

PS172.

Angiotensin Receptor Blockers, Beta Blockers, and Antiplatelet Agents Improve Primary Patency after Arterio-Venous Hemodialysis Access Placement

Rubie S. Maybury[1], Anton N. Sidawy[2], Richard Amdur[1], Robyn A. Macsata[1]. [1]Veterans Affairs Medical Center, Washington, DC; [2]George Washington University Hospital, Washington, DC

Objectives: Arterio-venous hemodialysis access (HDA) failure is a major cause of morbidity in end stage renal disease. We examined the influence of medications on HDA primary patency (PP).

Methods: After IRB approval, we retrospectively analyzed upper extremity HDA, excluding revisions, placed from 2005-2009 at the Washington, DC VA Medical Center. We used Cox proportional hazard models, adjusted for patient and access characteristics, to assess the influence of 11 medication classes on PP.

Results: From 261 autogenous and 123 prosthetic HDA, we excluded 6 for unknown thrombosis date and 45 autogenous accesses for primary nonfunctionality. We analyzed 213 autogenous and 120 prosthetic HDA. Two yr PP rates were 49% for autogenous vs. 30% for prosthetic HDA. On multivariable analysis, angiotensin receptor blockers (ARBs) and beta-blockers (BBs) reduced the risk of autogenous HDA failure, and ARBs lowered the risk of prosthetic HDA failure (Table). On subgroup analysis, ARBs prolonged autogenous HDA patency only among patients using antiplatelet agents (HR 0.21, 95% CI 0.05 - 0.89, p 0.034), indicating that both drugs must be used in combination for either to be effective. For prosthetic HDA, there were no significant drug-drug interactions. Model diagnostics showed low multicollinearity.

Conclusions: After HDA placement, administration of ARB plus an antiplatelet agent or BB (for autogenous HDA) or ARB (for prosthetic HDA) should be considered to improve patency.